

CLAIMS

1. A method of establishing a connection in a communication system, the connection involving a mobile station subscribing to a first mobile communications network and roaming in a second mobile communications network, the communication system comprising a first connection management entity provided in association with the first mobile communication network and a second connection management entity provided in association with the second mobile communication network, the method comprising:

registering the roaming mobile station with the second mobile communications network;

registering the roaming mobile station with the second connection management entity;

in response to a request for a connection involving the roaming mobile station, routing signalling that associates with the request to one of the connection management entities;

setting up a communications link between the first and second mobile communications networks via a third communications network by means of the first and second connection management entities based on said signalling associated with the request; and

establishing the requested connection by means of the communications link, the first mobile communications network and the second mobile communications network.

2. A method as claimed in claim 1, wherein the third communications network comprises a packet switched data network.

3. A method as claimed in claim 2, wherein the packet switched data network is based on the Internet Protocol (IP).

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4. A method as claimed in claim 3, wherein the communications link comprises a Voice over Internet Protocol (VoIP) link.

10 5. A method as claimed in claim 2, wherein the packet switched data network is a frame relay network.

6. A method as claimed in claim 5, wherein the communications link comprises a Voice over frame relay link.

15 7. A method as claimed in claim 2, wherein the packet switched data network is a asynchronous transfer mode (ATM) network.

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8. A method as claimed in claim 7, wherein the communications link comprises a Voice over ATM link.

9. A method as claimed in claim 1, wherein

25 the request for connection originates from the roaming mobile station,

the request is received at a switching center of the second mobile communications network,

30 in response to receiving the request, the switching center of the second mobile communications network signals to the second connection management entity, and

the second connection management entity request from the first connection management entity for a communications link to be set-up between the first and second mobile communication networks.

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10. A method as claimed in claim 9, wherein the second connection management entity verifies if the connection is to be routed to the first mobile communications network before requesting for the set-up of the 10 communications link between the first and second mobile communications networks.

15. A method as claimed in claim 9, wherein the connection is requested by the user of the roaming mobile station by calling to the second connection management entity.

20. A method as claimed in claim 9, wherein the request for the connection from the roaming mobile station is received at the switching center of the second mobile communications network and automatically signalled from the switching center of the second mobile communications network to the second connection management entity.

25. 13. A method as claimed in claim 1, wherein the request originates from another party for a connection to the roaming mobile station,

the request is received at a switching center of the first mobile communications network,

30. the switching center of the first mobile communications network signals to the first connection management entity, and

the first connection management entity request from the second connection management entity for a communications link to be set-up between the first and second mobile communication networks.

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14. A method as claimed in claim 1, comprising dropping one or both of the first and second connection management entities from the connection after the connection has been established between the parties.

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15. A method as claimed in claim 1, comprising storing information regarding at least one connection management entity other than said first connection management entity in the memory means of the mobile station.

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16. A method as claimed in claim 1, comprising sending information regarding at least one connection management entity other than said first connection management entity to the mobile station.

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17. A method as claimed in claim 15, wherein the information comprises the network address of the said at least one connection management entity for enabling the mobile station to contact said network management entity.

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18. A method as claimed in claim 1, further including the steps of:

storing in the first connection management entity information regarding one or more terminals to which the user of the mobile station might wish to establish a connection;

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forwarding the stored information to the second connection management entity; and

initiating a connection establishment procedure based on the forwarded information.

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19. A method as claimed in claim 18, wherein the connection establishment is based on a list of names and associated telephone numbers received from the first connection management entity.

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20. A method as claimed in claim 18, wherein the connection establishment is initiated by sending a voice command from the roaming mobile station to the second connection management entity.

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21. A method as claimed in claim 1, comprising:

determining the mobile communications network which the mobile station has roamed into; and

20 based on the knowledge of the roamed mobile communications network, registering the mobile station into the connection management entity associated with the roamed mobile communications network.

22. A method as claimed in claim 21, wherein the mobile 25 communications network is determined based on an indicator received from the roamed network.

23. A method as claimed in claim 21, wherein the mobile 30 communications network is determined based on information regarding the geographical location of the mobile station.

24. A method as claimed in claim 1, wherein
the roaming mobile station initiates the connection
establishment by calling to the second connection
management entity;

5 the second mobile communications network routes the
call to the second connection management entity; and
further information is given to the second
connection management entity about the second party.

10 25. A method as claimed in claim 1, wherein
the request for a connection is generated by the
roaming mobile station such that the request includes
information about the second connection management entity
and the second party;

15 the second mobile communications network routes
signalling associated with the request to the second
connection management entity based on said information
about the second connection management entity; and
the second connection management entity signals to
20 the first connection management entity based on said
information about the second party.

26. A communication system comprising:

a first mobile communications network;
25 a second mobile communications network;
a third communications network;
a register for registering a roaming mobile station
with the second mobile communications network, the
registration enabling the roaming mobile station to
30 communicate via the second mobile communications network;

a first connection management entity provided in association with the first mobile communication network and interfacing the third communications network;

5 a second connection management entity is provided in association with the second mobile communication network and interfacing the third communications network;

wherein the first and second connection management entities are arranged to provide a connection for a mobile station subscribing to the first mobile 10 communications network and roaming in the second mobile communications network and registered with said register and also with said second connection management entity by setting up a communications link between the first and second mobile communications networks via the third 15 communications network.

27. A communication system as claimed in claim 26, wherein the third communications network comprises a packet switched data network.

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28. A communication system as claimed in claim 27, wherein the packet switched data network is based on the Internet Protocol (IP).

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29. A communication system as claimed in claim 28, wherein the communications link comprises a Voice over Internet Protocol (VoIP) link.

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30. A communication system as claimed in claim 27, wherein the packet switched data network is a frame relay network.

31. A communication system as claimed in claim 30, wherein the communications link comprises a Voice over frame relay link.

5 32. A communication system as claimed in claim 27, wherein the packet switched data network is a asynchronous transfer mode (ATM) network.

10 33. A communication system as claimed in claim 32, wherein the communications link comprises a Voice over ATM link.

15 34. A communication system as claimed in claim 26, wherein the request for the connection is arranged to be received at a switching center of one of the mobile communications networks, the switching center being adapted to automatically signal to one of the connection management entities signalling associated with such a request.

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35. A communication system as claimed in claim 26, comprising:

25 storage means in the first connection management entity for storing information regarding one or more terminals to which the user of the roaming mobile station might wish to establish a connection; and

30 means for forwarding the stored information to the second connection management entity, whereby a connection establishment procedure may be initiated at the second network based on the forwarded information.

36. A communication system as claimed in claim 35, wherein the information comprises a list of names and associated telephone numbers.

5 37. A mobile station subscribing to a first mobile communication network and enabled to roam in a second mobile communication network, comprising means for converting a destination party number into a number of a connection management entity provided in association with
10 the second mobile communication network, said connection management entity interfacing a third communications network and arranged to provide a communications link between the first and second mobile communications networks via the third communications network such that
15 the normal call routing between the first and second mobile communication networks is bypassed.

38. A mobile station as claimed in claim 37, comprising storage means for storing information regarding at least
20 one connection management entity other than a connection management entity of the first mobile communication network.

39. A mobile station as claimed in claim 38, wherein the
25 information comprises the network address of the said at least one connection management entity for enabling the mobile station to contact said network management entity.

40. A connection management entity for a mobile
30 communications network, the connection management entity being arranged to register a mobile station roaming with the mobile communications network and to communicate with

another connection management entity provided in association with a second mobile communication network via a third communications network, the connection management entity being arranged to provide a connection 5 for the roaming mobile station by means of a communications link set-up between the first and second mobile communications networks via the third communications network.